

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

000035



176648

DATE: MAY 24 1986

SUBJECT: On-Scene Coordinator's Report - Removal Action at A-Chemical Corporation, Chicago, Illinois (Site ID #3W)

FROM: Stephen Browning - Stavros Emmanouil, On-Scene Coordinators, Emergency and Enforcement Response Branch

TO: Timothy Fields, Director
Emergency Response Division (WH-548B)

THRU: Basil G. Constantelos, Director
Waste Management Division

Attached please find the On-Scene Coordinator's report for the removal action at the A-Chemical Corporation in Chicago, Illinois. The report follows the format outlined in the National Contingency Plan. This removal action was initiated on June 11, 1986, and was completed on August 3, 1986.

The site posed an imminent threat to human health and the environment, and met the criteria established in Section 300.65 of the National Contingency Plan. A removal action was taken to alleviate the threat of fire/explosion and the direct contact to hazardous materials posed by damaged drums. Project costs totalled \$201,482.52, of which \$152,280.18 was for the Emergency Response Cleanup Services contractor, \$11,269.80 for the Technical Assistance Team, and \$37,782.55 for the United States Environmental Protection Agency combined direct and indirect costs.

The site is not listed on the National Priorities List.

Attachment

cc: D. Ouder Kirk, OS-210
J. Frank, IEPA

bcc: D. O'Riordan, SPA-14
J. Oaks, SHSM-12
~~REDACTED~~
K. Westlake, SRA-14



ON SCENE COORDINATOR'S REPORT

ON-SCENE COORDINATOR'S REPORT

CERCLA REMOVAL PROJECT

A-CHEMICAL CORPORATION

CHICAGO, ILLINOIS

**Region V
Waste Management Division
Emergency Response Section**



ON-SCENE COORDINATOR'S REPORT

CERCLA REMOVAL PROJECT

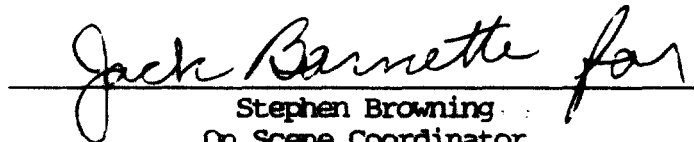
A-CHEMICAL CORPORATION

CHICAGO, ILLINOIS

DELIVERY ORDER NO 6894-05-063

SITE ID #3W

REMOVAL DATES: JUNE 11, 1986 - AUGUST 3, 1986

A handwritten signature in cursive script, appearing to read "Jack Barnette for", is written over a horizontal line.

Stephen Browning
On Scene Coordinator
Emergency and Enforcement Response Branch - Section II
Waste Management Division
Region V, United States Environmental Protection Agency

EXECUTIVE SUMMARY

On June 11, 1986, the United States Environmental Protection Agency (U.S. EPA) initiated a removal action at the A-Chemical Corporation site in Chicago, Illinois. The removal action was taken to mitigate the threats to public health posed by the presence of drums, damaged by two fires, containing sodium cyanide, dichromic acid, phosphoric acid, muric cyanide, sodium benzoate, sodium bicarbonate, chromium, hexavalent chromium, nickel, oil, grease, and ash. The facility constituted an imminent threat to human life, public health and the environment by threat of fire or explosion, by the direct contact of humans to hazardous materials, and by the threat of off-site migration of contaminants.

The U.S. EPA transported 277 drums of waste and 23,154 gallons of contaminated water to a facility for chemical treatment. Construction debris from the building was decontaminated on-site and shipped for disposal. The remaining building brick was scrubbed with a high pressure clear water wash. The rinsate was collected and was sent off-site for treatment and disposal.

The removal was completed on August 3, 1986. Project costs totalled \$201,482.52, of which \$152,280.18 was for the Emergency Response Cleanup Services (ERCS) contractor, \$11,269.80 for the Technical Assistance Team, and \$37,782.55 for the U.S. EPA combined direct and indirect costs. The On-Scene Coordinator was Stephen Browning.

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1.0 SUMMARY OF EVENTS

1.1 Location

The A-Chemical Corporation (A-Chem) is located at 1326 North Western Avenue in Chicago, Illinois (Figure 1). The site is bordered on the north by Humboldt Park residential apartments, on the west by an alley with garages, on the south by a tavern and an apartment complex, and on the east by Western Avenue (Figure 2). Run-off from the site discharges to curb-side storm sewers in the alley to the south or on Western Avenue to the east. The store front property is zoned for commercial occupancy.

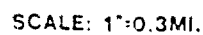
1.2 Initial Situation

The A-Chemical Corporation operated as a supplier of common and custom plating chemicals. The company operated as a distributor from the mid-1960s to 1986; the actual years of operation, however, are unknown. The owner of the company, Mr. John Pauga, apparently rented the property from the Illinois Development Company (IDC) of Chicago. Mr. Pauga died in the spring of 1986. According to tax records, IDC was delinquent on payment of property taxes. The Tax Index Number is 16-01221-037. Mr. Wolf of IDC denied that the company owned the property at 1326 North Western Avenue, Chicago, Illinois. On January 26, 1986, the U.S. EPA, accompanied by the Technical Assistance Team (TAT), responded to a fire at 1900 hours. The fire allegedly started when a bunsen burner was left unattended and ignited nearby chemicals. The Chicago Fire Department responded to the fire at approximately 1400 hours with the assistance of fire companies from several neighboring towns. The Chicago Police and Fire Department evacuated the nearby residences. Water from the fire extinguishing operations drained off the property to the south. Storm sewers in the alley on the west and on the Western Avenue to the east intercepted the flow. The fire continued to smolder after the extinguishment.

On-Scene Coordinator (OSC) Briand Wu and TAT members Scott Springer and Kurt Schultz donned Level B protection at 2115 hours and evaluated peripheral areas. A combustible gas indicator (CGI), a Hydrogen Cyanide (HCN) monitox unit, and a Photoionization Detector (PID) were used to evaluate air quality. No readings above ambient conditions were observed.

The building was composed of two sections divided by a masonry wall. The western section was gutted by the fire, but the eastern section remained intact. The eastern section contained drummed materials labeled as sodium cyanide, dichromic acid, phosphoric acid, muric cyanide, sodium benzoate and sodium bicarbonate. The complete inventory was difficult to obtain because the charred labels were illegible. The building was secured by a security service after the fire, and the owner of A-Chem was requested to board up the building.

On January 29, 1986, the Emergency Response Cleanup Services (ERCS) subcontractor O.H. Materials (OHM) was tasked by the U.S. EPA to remove the frozen, contaminated run-off. An end-loader, owned by the City of Chicago, collected the ice and consolidated it near two city sewers. The ice was then



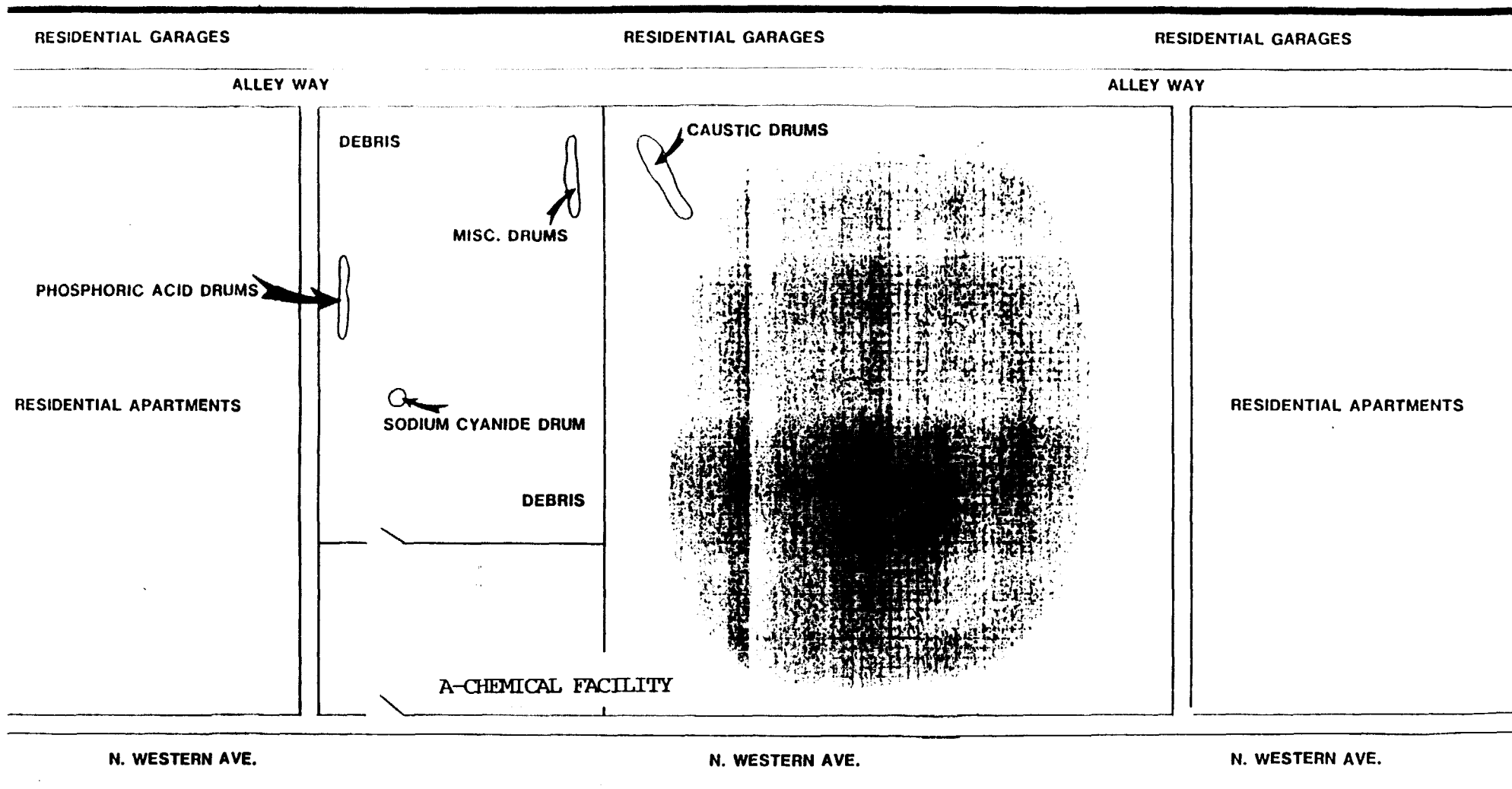


FIGURE 2
SITE MAP
-CHEMICAL FACTORY FIRE
CHICAGO, IL

0 SCALE

-BURN AREA



Figure 2-Building View

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melted by the Chicago Fire Department's Hazardous Material Team and subsequently allowed to discharge into the city storm sewer. A high-pressure hose melted the ice, and the melted liquid was collected by a vacuum truck at remote locations where collection with an end-loader was not possible. The contents of the vacuum truck were subsequently discharged to the city storm sewer. The stabilization efforts were completed on February 1, 1986.

Throughout the spring of 1986, numerous fires were reported in the area surrounding the A-Chem site. The vacant building had accumulated several stolen cars that had been stripped of parts. During this time, the owner, Mr. Pauga, died and the City of Chicago failed to accept responsibility. Neither the State of Illinois or the City of Chicago initiated corrective actions.

The U.S. EPA and the TAT responded to another fire at the A-Chem site on June 2, 1986. Because the structural integrity of the building was determined unsafe, a site entry was not made. The City of Chicago mobilized a vacuum truck to remove liquids collected in the alley from the extinguishing operations and heavy rains. Subsequently, a removal action by the U.S. EPA was undertaken to remove the fire damaged drums from the site.

1.2.1 State and Local Efforts to Cleanup the Site

The City of Chicago provided excellent response and fire effort to the two fires. The fire and police departments were effective in evacuating the nearby residences and monitoring site control in the vicinity of A-Chem. The City of Chicago Department of Streets and Sanitation provided an end-loader and vacuum truck to remove debris and run-off. In addition to equipment and manpower support, the Department of Streets and Sanitation supplied barricades and fire hoses. The Illinois Environmental Protection Agency (IEPA) was not involved during this emergency removal. The State Attorney's Office pursued a responsible party cleanup but failed to resolve the problem.

1.3 Threat to Public Health and the Environment

The facility constituted an imminent threat to human life, public health and the environment by threat of fire or explosion, by direct contact of humans to hazardous materials, and by the threat of off-site migration of contaminants.

1.4 Federal Cleanup Action

The U.S. EPA notified the Zone 3 ERCS prime contractor PEI Associates, under delivery order # 6894-05-063 that a cleanup crew was to be mobilized on June 11, 1986. The cleanup activities were conducted by the subcontractor OHM of Hopkins, Minnesota. Mr. Stephen Browning, the designated OSC, met with the TAT member Kurt Schultz on June 11, 1986, to discuss scheduled cleanup activities, technical support, and safety procedures.

Each of the following sections corresponds to the major phases of the immediate

removal action. These phases illustrate the sequence of tasks and actions taken to mitigate the threats to human health and the environment as described in the National Contingency Plan 300.65(b)(2). A time line showing the activities is presented in Figure 3.

1.4.1 Provide Safety and Support Facilities

A pre-cleanup meeting was held on June 11, 1986, to discuss technical and safety aspects of the cleanup. Twenty-four hour security was established on June 11, 1986, by the Chicago Police Department. Site security was maintained during the entire removal action. A site-specific safety plan was prepared that outlined all levels of personal protection, hazards associated with the site, toxicity data, and emergency phone numbers. All staged drums were secured in a warehouse by a locking door and a 24-hour security service.

1.4.2 Mobilization: June 11, 1986

Equipment, materials, and response personnel were mobilized by the OHM on June 11, 1986. Equipment included a response van and a pickup truck.

1.4.3 Cleanup Operations: June 11, 1986 to August 3, 1986

All the drums were segregated from construction debris and staged using a bobcat equipped with a fork lift attachment. All burned out and empty drums were staged into groups based on original location in the building and apparent product type. Staged drums were labeled according to a nomenclature developed by OSC Browning. Prior to sampling, the drums were examined to determine quantity and consistency. Following the labeling, the drums were sampled, overpacked when required, and staged in a vacant building next to A-Chem to the south. Construction debris from the building was decontaminated in the northwest corner of the site and shipped to Land-O-Lakes Landfill in Chicago for disposal. Decontamination water from this operation was collected by a vacuum truck and transported to the Chem-Clear facility, in Chicago, Illinois for treatment. Concurrent with the debris removal, Gulf Coast Analytical Services, Park Forest South, Illinois, performed analysis to identify waste streams appropriate for disposal criteria. The remaining building brick was scrubbed with a high pressure, clear water wash, and the water was disposed of at Chem-Clear. The site was secured July 1, 1986, while transportation and disposal arrangements were being made by OSC Browning. OHM was demobilized, but site security continued.

1.4.4 Summary of Analytical Data Performed on the Drummed Wastes

All of the drums found on site were sampled in order to provide sufficient information for disposal. Compatibility testing identified three waste streams for the drummed chemicals: low pH (<6), neutral pH (6-8), and high pH (>8). A full Gas Chromatography/Mass Spectrometry (GC/MS) priority pollutant scan, total concentrations of metals, and physical characteristics were determined for the three waste streams. The acid composite group (pH < 6) contained significant levels of total chromium, hexavalent chromium, ash, and total solids. The neutral waste stream had high concentrations of total chromium, nickel, oil, grease, and ash. The basic waste stream (pH > 8) had a high level of ash and

TIME LINE OF IMMEDIATE REMOVAL ACTIVITIES
A-CHEMICAL COMPANY
CHICAGO, ILLINOIS

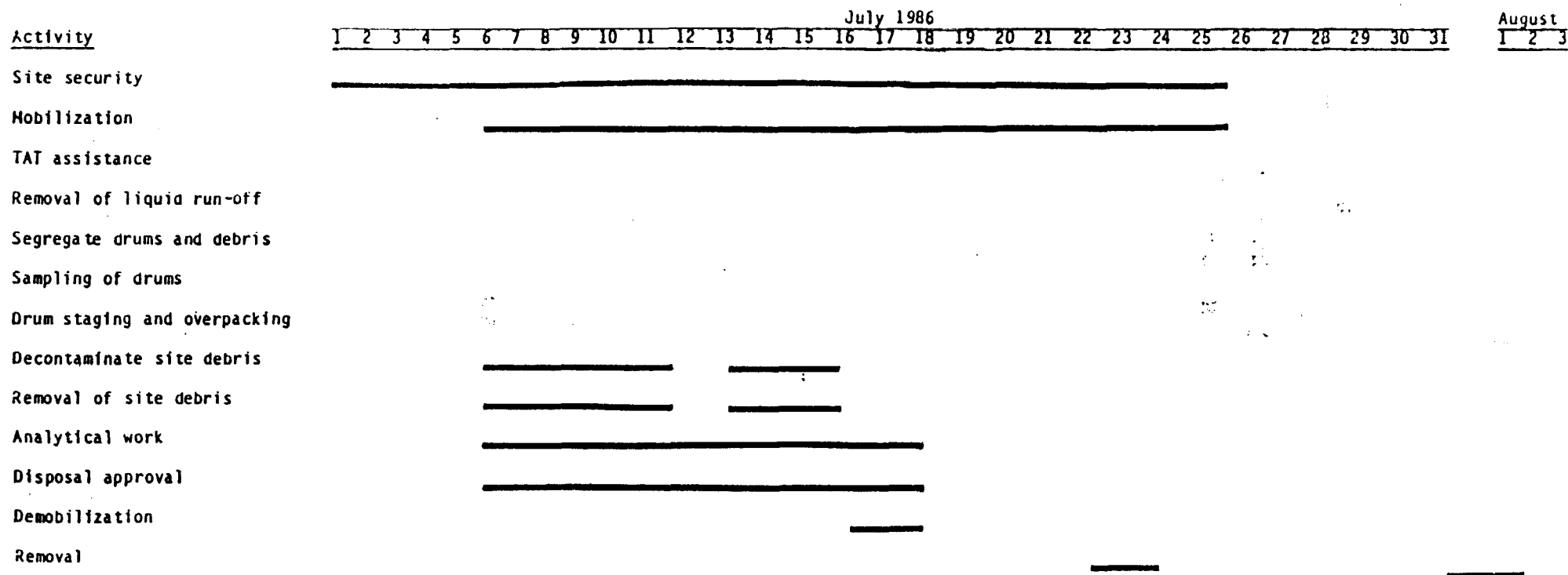


Figure 3-Activity Time Table

hexavalent chromium.

1.4.5 Disposal: July 23 and August 1, 1986

The three waste streams were accepted at Nelson Industrial Treatment Company, Detroit, Michigan. Nelson planned to render the materials inert via chemical treatment. The materials were transported on two separate occasions: the July 23, 1986, shipment and the August 1, 1986 shipment. A total of 277 drums of waste and 23,154 gallons of contaminated water were removed from the site. The contaminated water was treated and disposed by the Chem-Clear disposal facility in Chicago.

1.4.6 Demobilization

The security service was demobilized on July 26, 1986 after the site was determined to be safe to public health and the environment.

1.5 Cost Summary

PEI, the prime ERCS contractor, subcontracted OHM to perform all on-site activities at the A-Chem site. Site activities were initiated by the ERCS contractors on June 11, 1986, and completed on August 3, 1986. A breakdown of the expenditures into major categories is presented in table 1. In addition to the \$152,280.18 incurred through contractor services, recoverable costs were incurred by the U.S. EPA and the TAT. Table 2 summarizes U.S. EPA, TAT, and ERCS Contractor costs.

1.6 Community Relations

State and local authorities were involved in initial meetings that brought attention to the site. Local news media personnel provided occasional coverage on the progress of the cleanup. On June 27, 1986 a community awareness group meeting was held at a neighborhood community building to discuss citizen concerns. This meeting was attended by the OSC Browning and the U.S. EPA Public Affairs Official William Reynolds.

2.0 EFFECTIVENESS OF THE REMOVAL ACTION

2.1 Responsible Parties

The owner of A-Chem, Mr. John O. Pauga, attempted to secure the site by boarding up the building. Mr. Pauga never initiated a cleanup effort before he died in the spring of 1986. The property owner, IDC, denied ownership and failed to initiate a cleanup effort.

TABLE 1

Summary of contractor expenditures by service category
A-Chemical Company Removal Action
Chicago, Illinois
June 2, 1986 to August 3, 1986¹

<u>Service</u>	<u>Amount</u>
Labor	\$38,819.85
Per Diem	5,085.00
Equipment	14,458.63
Materials (reimbursable)	3,636.53
Materials (fixed rate)	10,137.59
Transportation	8,685.31
Disposal	45,540.94
Analysis	8,551.50
Subcontracts	17,364.83
	<hr/>
Total	\$152,280.18

¹Cost is as of Invoice 6, approved by the U.S. EPA on February 16, 1988, and is subject to audit and/or revision.

TABLE 2
Summary of all recoverable expenditures incurred
during the A-Chemical Company removal action
Chicago, Illinois
June 2, 1986 to August 3, 1986¹

<u>Organization</u>	<u>Amount</u>
ERCS Costs	\$152,280.18
U.S. EPA Indirect Costs	26,137.50
U.S. EPA Direct Costs	11,645.05
TAT Costs	11,269.80
	<hr/>
Total Costs	\$201,482.53

¹ EPA and TAT cost information is from a U.S. EPA Financial Management Division cost report dated March 22, 1989, and is subject to revision and/or audit.

2.2 State and Local Activities

The City of Chicago attempted to clear the building of debris and structural hazards. The city abandoned efforts when several employees were burned by the chemicals. Consequently, the city and state abandoned efforts to secure the site. Legal action was initiated by the state's attorney to determine who would assume responsibility for the site. After the legal proceedings stalled and a second fire occurred in the building, the U.S. EPA initiated an immediate removal action. During the removal action, the Chicago Fire Department and Streets and Sanitation facilitated efforts.

2.3 Effectiveness of Federal Actions

The actions taken by the U.S. EPA mitigated the threats to the public health and the removal of the contaminants effectively met the objective.

2.4 Effectiveness of Contractors

The contractor and subcontractor completed the project within the timeframe established and within the budget.

3.0 PROBLEMS ENCOUNTERED

3.1 General Site Conditions

The burned structural debris was difficult to render "clean" due to the nature of the material. The decontamination generated large volumes of rinsate and was difficult to control. However, it was felt that this was the most economical means of removing the chemically-saturated building refuse.

3.2 Site Security

The neighbors, in general, welcomed the effort. However, property was vandalized frequently, and 24-hour site security was required because the boards used to secure the building were stolen on several occasions. In addition, several neighbors inhibited the work effort by refusing to remain outside of the restricted area. Site security service personnel refused access to the hot zone.

4.0 RECOMMENDATIONS

No recommendations can be made.